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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/521,639	03/08/2000	Lewis B Aronson	9775-0031-999	1452

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EXAMINER

JACKSON, CORNELIUS H

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/521,639

Applicant(s)

ARONSON ET AL.

Examiner

Cornelius H. Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-7,10,11,14-16,21,23-25,27 and 28 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

- 5) ☐ Claim(s) _____ is/are allowed.

- 6) ☒ Claim(s) 1,2,5-7,10,11,14-16,21,23-25,27 and 28 is/are rejected.

- 7) ☐ Claim(s) _____ is/are objected to.

- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


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Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Acknowledgment

1. Acknowledgment is made that applicant's Amendment, filed on 25 April 2003, has been entered. Upon entrance of the amendment, claims 1, 5, 7, 10, 11, 15 and 28 were amended and claims 3, 4, 8, 9, 12, 13, 17-20, 20 and 26 were cancelled. Claims 1, 2, 5-7, 10, 11, 14-16, 21, 23-25, 27 and 28 are now pending in this application.

Specification

2. The amendment filed 19 December 2002 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: directing the reflected light "at least partially back *into* the laser".

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 2, 5-7, 10, 11, 14-16, 21, 23-25, 27 and 28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Light being directed at least partially back into the laser is not shown in Figures 4, 5 and 7A (Figures 4 and 7A fail to show any back reflection of light and Figure 5 fails to show the back reflection of light entering the laser cavity); and the specification at page 7, lines 14-21 teach that the light is not coupled back into the laser oscillation mode.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily

published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1, 2, 7, 10, 11, 14-16, 21 and 23-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Nagano (6014359). Nagano discloses a laser apparatus **Fig. 5A** comprising a laser **1** that emits light that is substantially linearly polarized; and a quarter wave retarder plate **4**, disposed with respect to the laser **1** so that the emitted laser light passes through the quarter wave retarder plate **4** prior to transmission of the emitted laser light through the optical transmission system **6**, the quarter wave retarder plate **4** causing the emitted laser light to become circularly polarized with a predefined handedness; wherein the quarter wave retarder plate **4** is also disposed so that light reflected by the optical transmission system **6** back towards the laser passes through the quarter wave plate **4** causing the reflected light to become linearly polarized with a polarization that is orthogonal to the emitted laser light emitted by the laser **1**, **see col. 3, lines 8-40 and col. 6, line 44-col. 7, line 21** and the laser apparatus, including the quarter wave retarder plate, is configured to direct the reflected light, polarized orthogonally to the light emitted by the laser, back in a direction of the laser, **see Fig. 5A**.

Regarding claim 2, Nagano discloses a lens **5**, wherein the quarter wave retarder plate **4** is disposed between the laser **1** and the lens **5** and the lens **5** and quarter wave retarder plate **4** are together configured to direct the reflected light, polarized orthogonally to the light emitted by the laser, back in a direction of the laser, (since the

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quarter wave retarder plate 4 is configured to direct the reflected light on its own, then it is inherent that with lens 5, the reflected light is directed back in a direction of the laser).

Regarding claim 7, Nagano discloses a hermetically sealed housing in which the laser is mounted, the housing having a window through which the emitted laser light is transmitted; wherein the quarter wave retarder plate is disposed to form part of the housing, **see col. 7, line 52-col. 8, line 3**, and all the other stated limitations, **see rejection to claim 1 above**.

Regarding claims 10, 11, 14-16, 21 and 23, **see rejection of claims 1, 2 and 7 above**.

Regarding claims 24 and 25, Nagano discloses all the stated limitations, **see abstract and col. 6, line 44-col. 7, line 21**.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 5, 6, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagano (6014359). Nagano, as applied to claims 1, 2, 7, 10, 11, 14-16, 21 and 23-25 above, teaches all the stated limitations except for the function of the linear polarizer blocking the reflected light after it passes through the quarter wave

retarder plate. Regarding claim 5, It would have been an obvious matter of design choice an element to block the reflected light from return to the laser, since applicant has not disclosed that by using the linear polarizer to block the reflected light solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the reflected light being blocked by the polarizing beam splitter

2.

- 9. Regarding claim 6, see rejection of claim 4 above.
- 10. Regarding claim 27, see rejection of claim 2 above.
- 11. Regarding claim 28, see rejection of claim 7 above.

Response to Arguments

12. Applicant's arguments filed 18 September 2002 have been fully considered but they are not persuasive.

Applicant argued the following:

- a. Nagano fails to teach a hermetically sealed housing.
- b. Nagano fails to teach the laser has an associated oscillation mode, and the reflected light, after passing through the quarter wave plate, has a polarization state that does not couple back into the laser's oscillation mode.
- c. Nagano fails to teach a linear polarizer.

Examiner reply to Applicant's arguments are as follows:

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a. It is inherent that the module into which the various elements are placed is hermetically sealed, since it has been held that a claim is anticipated if each element of the claim is found, either expressly described or under principles of inherency, in a single prior art reference, or that the claimed invention was previously known or embodied in a single prior art device or practice. *Kalman v. Kimberly-Clark Corp.*, 218 USPQ 789. Also, as shown by the Prior Art (Fig. 1), that it would have been common practice to one of ordinary skill in the art at the time to arrange the various elements of the invention within a hermetically sealed housing.

b. It is inherent that the laser has an associated oscillation mode, and the reflected light, after passing through the quarter wave plate, has a polarization state that does not couple back into the laser's oscillation mode, since the reflected light is redirected by the polarizing beam splitter and does not couple back to the laser. It has been held that a claim is anticipated if each element of the claim is found, either expressly described or under principles of inherency, in a single prior art reference, or that the claimed invention was previously known or embodied in a single prior art device or practice. *Kalman v. Kimberly-Clark Corp.*, 218 USPQ 789.

c. It would have been an obvious matter of design choice an element to block the reflected light from return to the laser, since applicant has not disclosed that by using the linear polarizer to block the reflected light solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the reflected light being blocked by the polarizing beam splitter 2.

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Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cornelius H. Jackson whose telephone number is (703) 306-5981. The examiner can normally be reached on 8:00 - 5:00, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7722 for regular communications and (703)308-7721 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.



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July 14, 2003


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